



SEMICONDUCTOR

DATA SHEET

SF1001CT~SF1007CT

VOLTAGE RANGE

50 to 600 Volts

10.0 Amperes

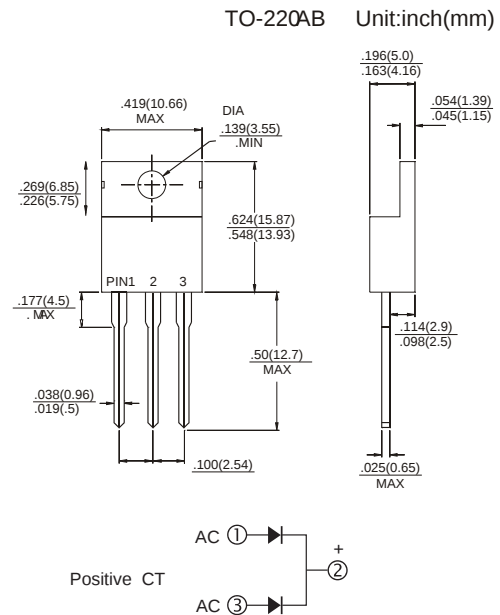


FEATURES

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Good for switching mode application
- High temperature soldering : 260°C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Lead solderable per MIL-STD-202, method 208 guaranteed
- Polarity: As Marked
- Mounting position: Any
- Weight: 2.24 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25 C ambient temperature unless otherwise specified.

Single phase half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

TYPE NUMBER	SF1001CT	SF1002CT	SF1003CT	SF1004CT	SF1005CT	SF1006CT	SF1007CT	UNITS
Maximum Recurre nt Peak Reverse Voltage	50	100	150	200	300	400	600	V
Maximum RMS Voltage	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at Tc=100°C	10.0							A
Peak Forward Surge Current , 8.3 ms single half sine-wave super imposed on rated load (JEDEC method)	150							A
Maximum I nstantaneous Forward Voltage at 5.0A	0.95				1.30		1.70	V
Maximum DC Reverse Current Tc=25 °C	10							uA
at Rated DC Blocking Voltage Tc=100°C	500							uA
Maximum Reverse Recovery Time (Note 1)	35				50			nS
Typical Junction Capacitance (Note 2)	50							pF
Operating and Storage Temperature Range TJ, TSTG	-55 +150							°C

NOTES:

1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

RATINGS AND CHARACTERISTIC CURVES

SF1001CT~SF1007CT

RATING AND CHARACTERISTIC CURVES

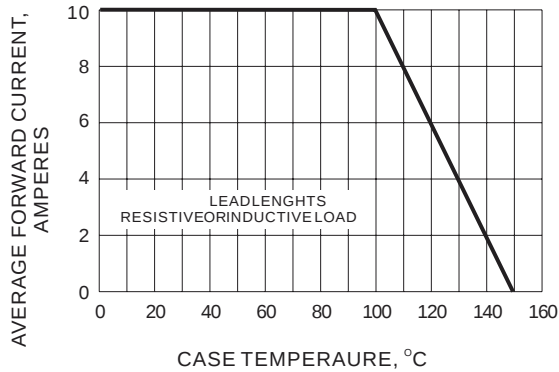


Fig. 1- FORWARD CURRENT DERATING CURVE

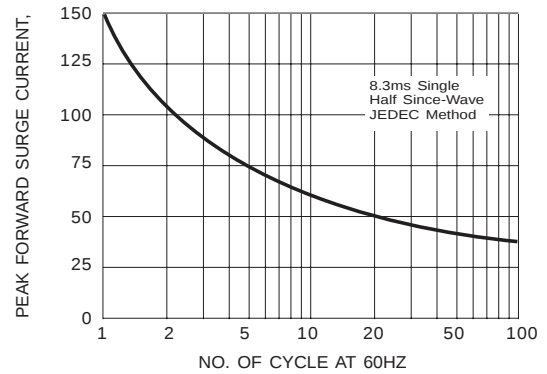


Fig. 2- MAXIMUM NON - REPETITIVE SURGE CURRENT

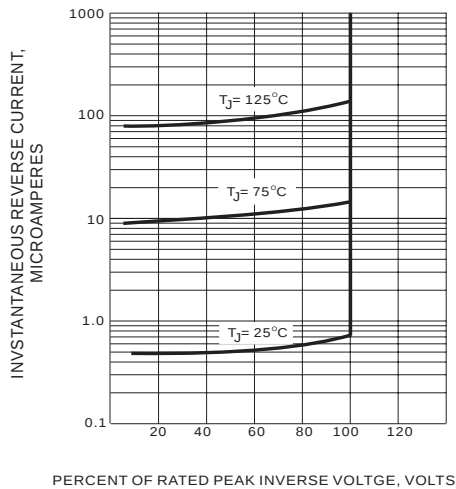


Fig. 3- TYPICAL REVERSE CHARACTERISTIC

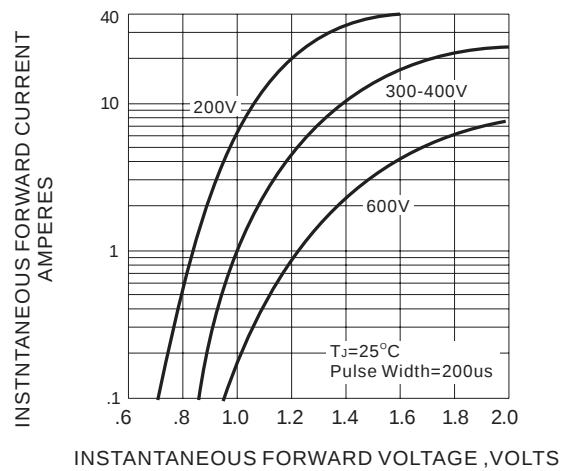


Fig. 4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC